

A Dichotomous Key for Tree ID

Leaves

leaf placement on branch is needed to ID some species

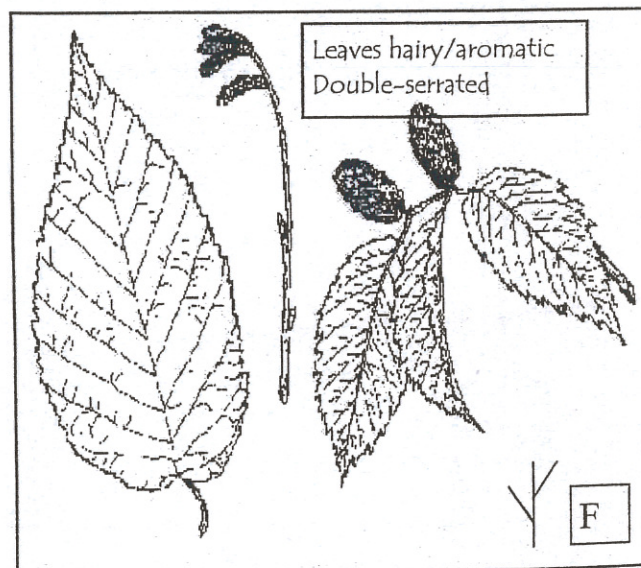
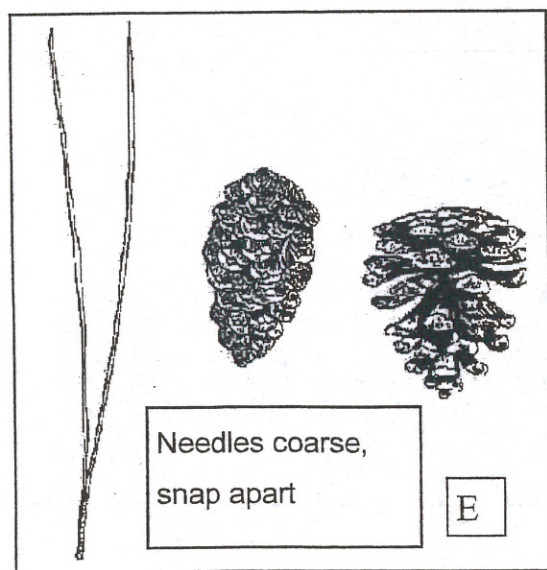
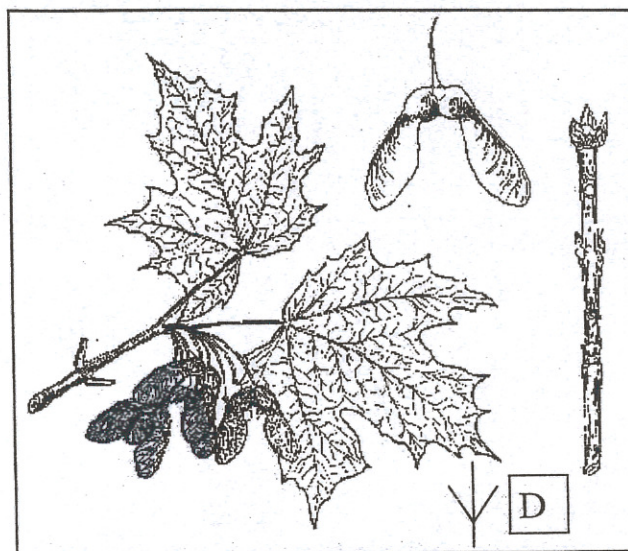
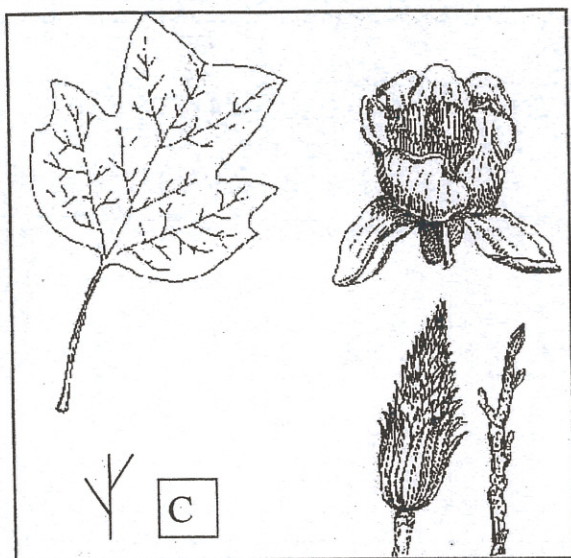
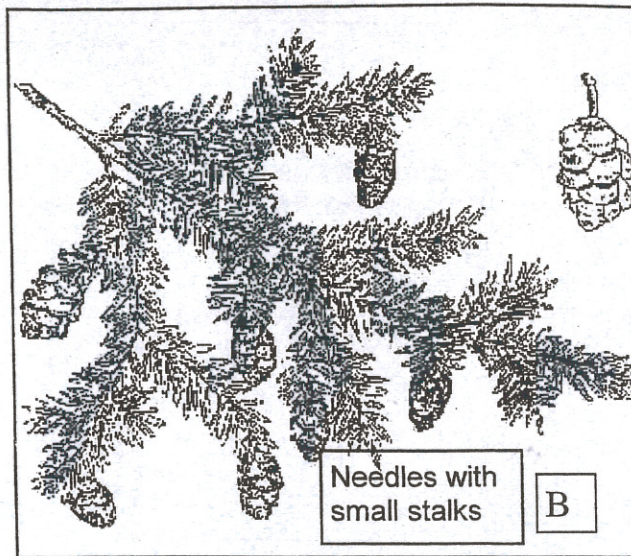
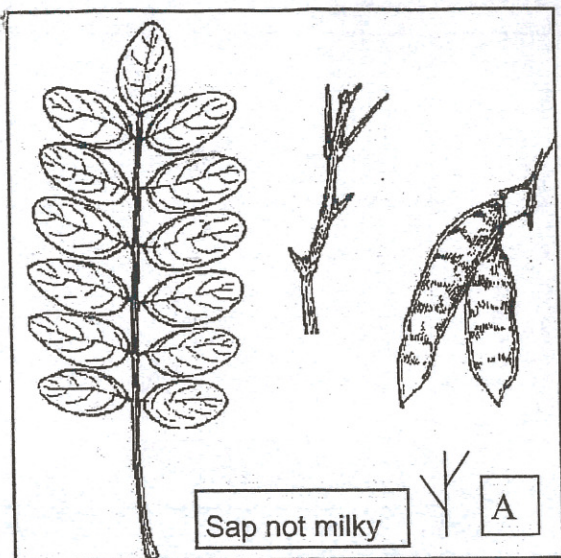
	If the tree has	Go to
1a.	Leaves needle or scale-like	2
1b.	Leaves broad and flat	12
2a.	Leaves scale-like	3
2b.	Leaves needles	4
3a.	Scales pointed, twigs not flat	red cedar
3b.	Scales blunt, twigs flat	white cedar
4a.	Needles (leaves) single on twigs	5
4b.	Needles (leaves) in bundles, tufts or rosettes	7
5a.	Needles flat, blunt	6
5b.	Needles four-side and sharp-pointed	spruce
6a.	Needles with small stalks (attaches needle to twig)	hemlock
6b.	Needles without stalks	fir
7a.	Needles in bundles with sheaths at base	8
7b.	Needles in tufts or rosettes	larch
8a.	Needles in bundles of 5	white pine
8b.	Needles not in bundles of 5	9
9a.	Needles in bundles of 3	pitch pine
9b.	Needles in bundles of 2	10
10a.	Needles about 4 inches long	11
10b.	Needles 1.5– 3 inches long	Virginia Pine
11a.	Needles sharp-pointed and flexible	Austrian pine
11b.	Needles stiff, snap apart when bent	red pine
12a.	Leaves opposite or whorled on stem	13
12b.	Leaves alternate on stem	18
13a.	Leaves opposite on stem	14
13b.	Leaves whorled on stem	catalpa
14a.	Leaves simple	15
14b.	Leaves compound (leaf made up of leaflets)	16

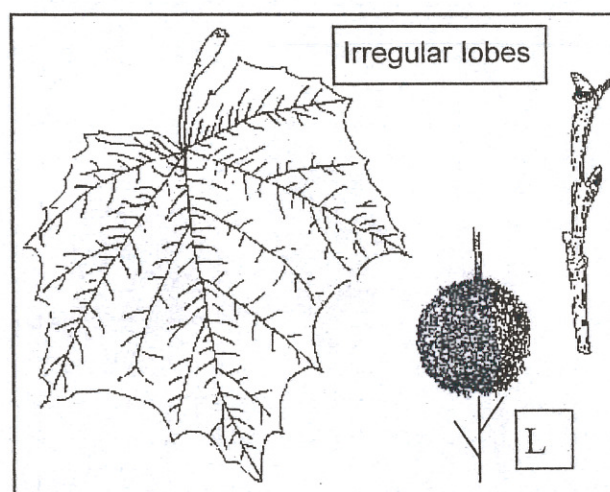
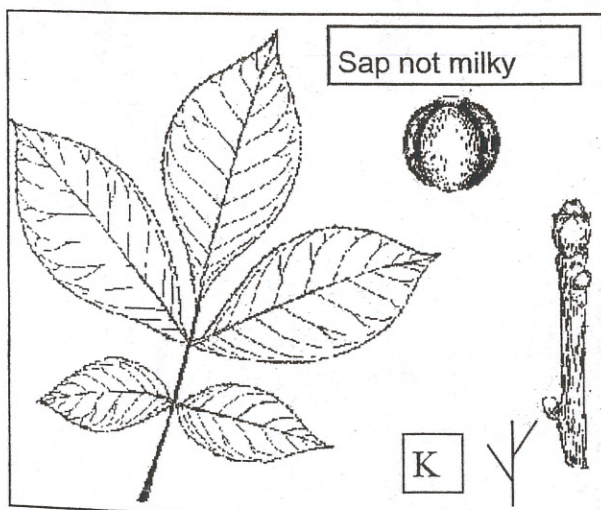
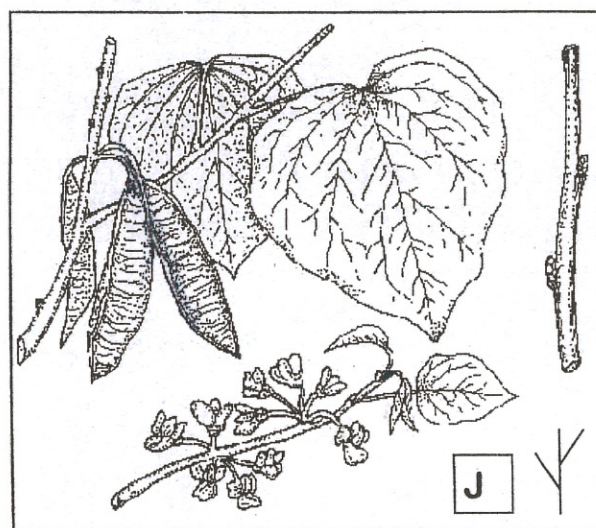
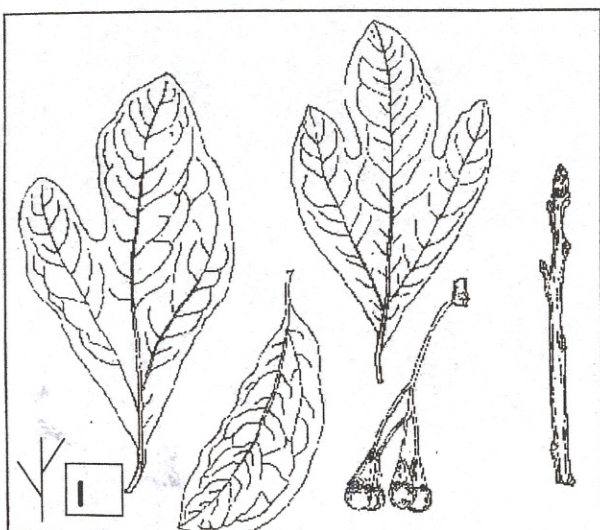
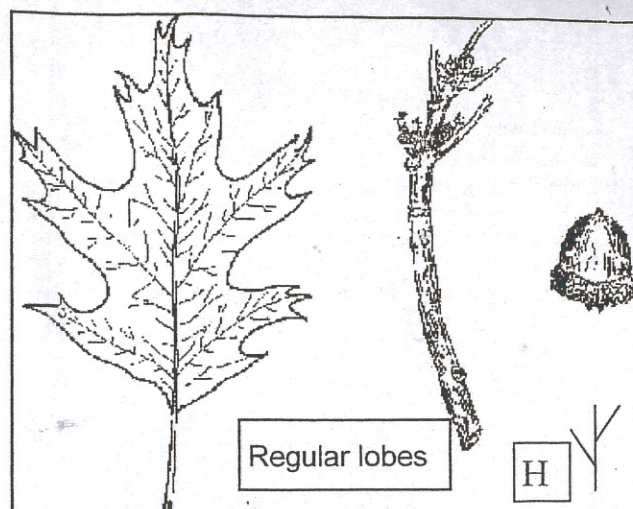
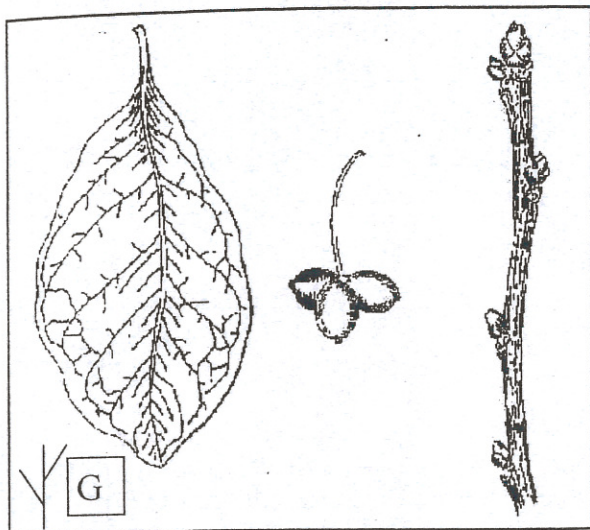
If the tree has	Go to
15a. Margins entire	dogwood
15b. Margins lobed	maples
16a. Pinnately-compound	17
16b. Palmately-compound	horse chestnut
17a. Leaf divided into 3 to 5 leaflets	box-elder
17b. Leaf divided into 7 leaflets	ash
18a. Leaves simple	19
18b. Leaves compound (leaf-made up of leaflets)	40
19a. Margins entire	20
19b. Margins deeply cut, lobed, or toothed	22
20a. Leaf base heart-shaped	redbud
20b. Leaf base tapering	21
21a. Leaves 2 to 5 inches long, leathery	black gum
21b. Leaves 5 to 10 inches long, thin	cucumber
22a. Margins deeply cut or lobed	23
22b. Margins coarsely or finely toothed	29
23a. Leaves with five deeply cut lobes, star-shaped leaf	sweet gum
23b. Leaves not star-shaped	24
24a. Leaves fairly square or notched at top	tulip poplar
24b. Leaves not square or notched	25
25a. Leaves from the <u>same tree</u> may be entire, or have 1 or 2 lobes, aromatic, smooth edges	sassafras
25b. Leaves can be entire or lobed ; edges may be smooth or serrated	26
26a. Leaf veins pinnate or palmate, leaf can be entire or have irregular lobes	27
26b. Leaf veins pinnate, leaf has regular, deeply cut lobes, more than 2 lobes.	28
27a. Leaf veins pinnate or palmate, leaf can be entire or possible to have 1, 3, or 5 irregular lobes with serrated edges; leaves are bluish green	mulberry spp.
27b. Leaf veins palmate, leaf has 3-5 major lobes, lobes are irregular; coarsely toothed; leaves are yellowish-green	sycamore
28a. Lobes rounded	white oak group
28b. Lobes sharp-pointed with hair-like bristles on end of each lobe	red oak group

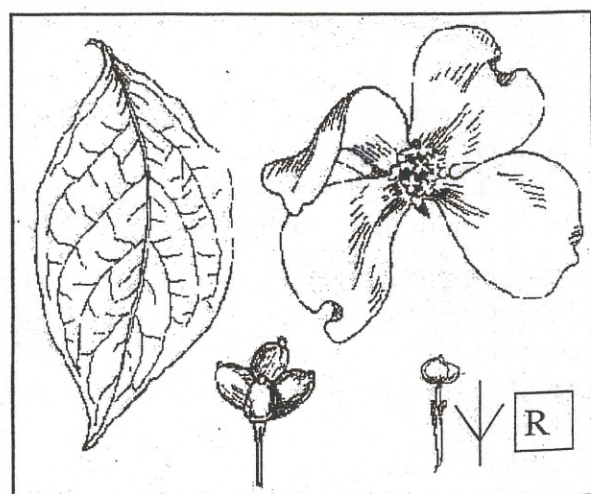
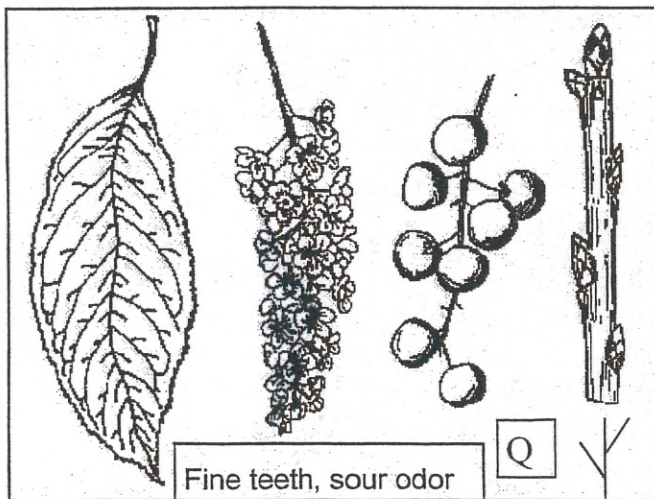
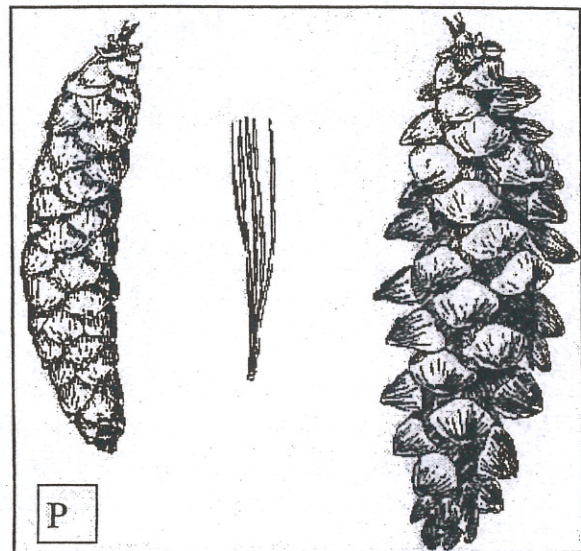
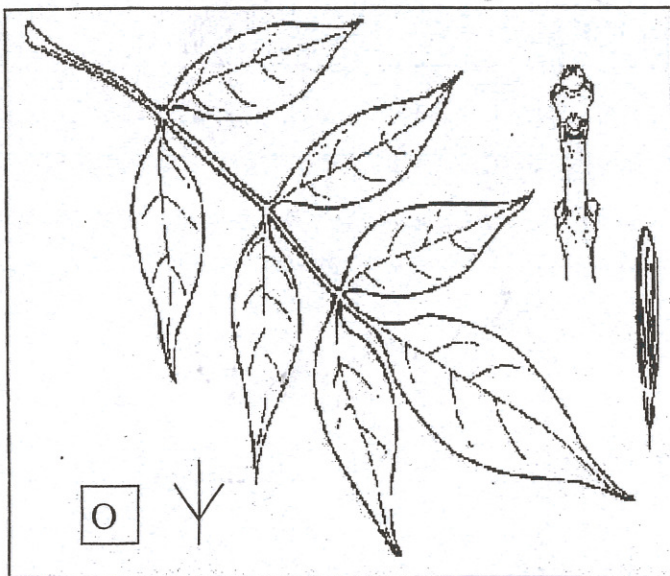
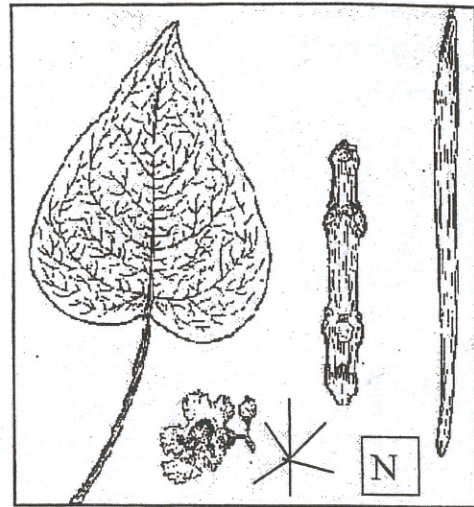
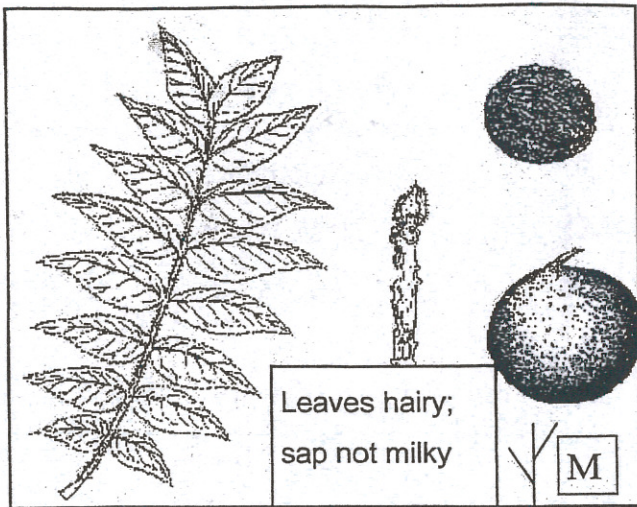
If the tree has		Go to
29a.	Teeth coarse, one at end of each lateral vein	30
29b.	Teeth fine, several for each main lateral vein	31
30a.	Leaves slender, 3 times as long as broad (wide)	chestnut
30b.	Leave not more than 2 times as long as broad (wide)	beech
31a.	Leaves very narrow, 4 or 5 times as long as broad (wide)	willow
31b.	Leaves broad	32
32a.	Leaves not over 1.5 times as long as broad	34
32b.	Leaves about twice as long as broad	33
33a.	Unequal heart-shaped leaf base, round stem	basswood
33b.	Leaf base not heart-shaped, sides equal at base, stem tends to be flattened	aspen
34a.	Leaves smooth, single serrate, fine teeth	35
34b.	Leaves rough or hairy	36
35a.	Leaf stalk with one or two glands (small bumps on stem); has a sour odor when twig is broken	cherry
35b.	Leaf stalk without glands	Juneberry (service berry)
36a.	Rough leaves	37
36b.	Soft, hairy leaves	38
37a.	Leaf margins double-serrate from base, pinnately veined	elm
37b.	Leaf margins single serrate from above base, tips long-pointed, pinnately-veined	hackberry
38a.	Leaf margins double-serrate, base blunt to slightly heart-shaped, some aromatic	birch
38b.	Leaf margins double-serrate, base tapered or rounded	39
39a.	Leaves nearly as broad as long	alder
39b.	Leaves narrow and pointed	hops hornbeam (ironwood)
40a.	Sap milky (in stems)	sumac
40b.	Sap not milky	41
41a.	Terminal leaflet usually larger than other leaflets	hickories
41b.	Terminal leaflet as large or smaller than other-leaflets or it may be lacking	42

If the tree has	Go to
42a. Leaflet rounded at tips	black locust
42B. Leaflets pointed	43
43a Leaves smooth	44
43b. Leaves hairy	45
44a. Leaves not over 7 inches long	mountain ash
44b. Leaves over 12 inches long	ailanthus
45a Terminal leaflet as large as other leaflets	butternut
45b. Terminal leaflet small or lacking	black walnut

End of this key







Key to Names

A	Black Locust
B	Eastern Hemlock
C	Tulip Tree
D	Sugar Maple
E	Red Pine
F	Yellow Birch
G	Black Gum
H	Red Oak
I	Common Sassafras

J	Redbud
K	Shagbark Hickory
L	Sycamore
M	Black Walnut
N	Catalpa
O	Ash
P	Eastern White Pine
Q	Black Cherry
R	Flowering Dogwood

Key to Symbols

	Leaves whorled around stem		Leaves alternate on stem
	Leaves opposite on stem		

Glossary

Leaves:

Simple— each leaf made up of a single leaf

Compound— leaf made up of several leaflets

Pinnately compound— leaflets arranged opposite one another

Palmately compound— leaflets come from 1 point and fan out

Leaf Arrangement

Alternate leaves— arranged at intervals along twigs. not opposite

Opposite leaves— arranged opposite each other along a twig

Whorled leaves— arranged in circles around the twig.

Veins

Pinnately veined— one major vein with smaller veins coming off a central vein

Palmately veined— several main veins coming from 1 location with smaller veins coming off each main vein

Leaf entire— no lobes or cuts in leaf; edge of leaf is smooth

Lobed leaf— leaf has deep indentations or cuts; can be rounded or sharp

Serrations/toothed— leaves has small indentations/jagged edges

Sheath— needles have a small, papery covering at the bottom

Terminal Leaf— leaflet on the end of a compound leaf

Simple leaf



Pinnately compound



Palmately compound



Palmately veined



Pinnately veined



lobed



entire



serrated

